

CLAIMS:

1. A method of reducing inter-symbol interference occurring at the digital to analog conversion of a one-bit digital signal stream, the generation of said one-bit digital signal stream (S_O) comprising the steps of converting an input signal to said one-bit digital signal stream with a sigma-delta configuration (SD) of a low pass filter (F) having an output
5 coupled to the input of a quantizer (Q) whose output is fed back to the input of the low pass filter, characterized by generating a control signal (S_C) that is representative of the density of the edges of the one-bit digital signal stream at the output (O) of the quantizer, multiplying the control signal (S_C) with said one-bit digital signal stream (S_O) and applying the result of the multiplication together with the output of the low pass filter (F) to the input of the
10 quantizer (Q).
2. A one-bit sigma-delta converter for converting an input signal (S_I) to a one-bit digital signal stream (S_O), said converter comprising a quantizer (Q) with an input and an output, a low pass filter (F) whose output is coupled to the input of the quantizer and whose
15 input is coupled to the output of the quantizer, thereby constituting a feedback-arrangement with the quantizer, means (P_1) to supply the input signal (S_I) to the feedback arrangement and means (O) to derive the one-bit digital signal stream from the output of the quantizer, characterized by an edge-density controller (G) connected to the output (O) of the quantizer for providing a control signal (S_C) indicative of the density of the edges of the one-bit digital
20 signal stream (S_O), a multiplier (M) for multiplying said control signal (S_C) with the one-bit digital signal stream (S_O) of the quantizer and means (P_2) for applying the output of the multiplier to the input of the quantizer.
3. A one-bit sigma-delta converter as claimed in claim 2 characterized in that the
25 edge-density controller (G) comprises an edge-extractor (E) connected to receive the one-bit digital signal stream (S_O) of the quantizer, and a second low pass filter (N) receiving the output signal (S_E) of the edge-extractor and providing said control signal (S_C).

4. A one-bit sigma-delta converter as claimed in claim 3 characterized by a reference signal source (V_P) connected to the second low pass filter (N) for referencing the level of the control signal (S_C).
5. A one-bit sigma-delta converter as claimed in claim 3 characterized in that the second low pass filter (N) is an integrator and that the reference signal is applied with a polarity opposite to that of the edge-extractor pulses to the input of the integrator.
6. A multi-bit sigma-delta converter for converting an input signal (S_I) to a multi-bit digital signal, said converter comprising a plurality of interconnected one-bit sigma-delta converters each with a low pass filter (F) in feedback arrangement with one of a plurality (VQ) of interconnected quantizer means, means to supply the input signal to said plurality of quantizer means and means to derive the multi-bit digital signal from the outputs (O_1, O_2, O_3) of the plurality of quantizer means, characterized in that each of the outputs of the plurality of quantizer means is connected to an edge-density controller (G) for providing a control signal indicative of the edges of the one-bit digital stream at said output, a multiplier (M) for multiplying said control signal with the one-bit digital stream of said output and means (P_2) for applying the result of the multiplication to the respective input of the quantizer means (VQ).
7. A storage medium (J) having stored thereon at least one signal track in one-bit digital stream format, characterized in that the number of clock periods comprising an edge in the one-bit digital stream of said signal track is less than 40% of the total number of clock periods of the one-bit digital stream of said signal track.